AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Currently amended) An information provision apparatus comprising:

an acquirer configured to acquire ~~a data stream generation source which generates~~ a data stream of content that has timewise continuity and metadata that includes information related to the content;

~~a metadata generation source which generates metadata which is data that describes said data stream content and that is unitized in correspondence to a segment of said~~ a unitizer configured to unitize metadata that includes at least one processing unit (MPU) for a segment of the data stream; and

a capsulizer ~~capsulization section which~~ configured to capsulize ~~capsulizes said~~ data stream packets and ~~said~~ metadata unit packets, unit by unit, so as to make possible partial execution of the metadata, and ~~generating~~ to generate a capsulized stream.

2. (Currently amended) The information provision apparatus according to claim 1, wherein ~~said~~ the metadata unit ~~packet is~~ packets are placed so that processing of ~~said~~ metadata ~~unit~~ units is completed before ~~the~~a processing start time of a corresponding segment of ~~said~~ the data stream.

3. (Currently amended) The information provision apparatus according to claim 1, wherein each said metadata packet includes a ~~the~~ processing start time of the first packet of said corresponding segment of said data stream, and a ~~the~~ duration of ~~that~~ said segment.

4. (Original) The information provision apparatus according to claim 1, wherein said metadata is described by structured description.

5. (Original) The information provision apparatus according to claim 1, wherein said metadata unit is described by structured description.

6. (Currently amended) The information provision apparatus according to claim 4, wherein said structured description is defined by ~~means of~~ Document Type Definition (DTD) of XML.

7. (Currently amended) The information provision apparatus according to claim 4, wherein said structured description is defined by ~~means of~~ Resource Description Framework (RDF) of XML.

8. (Currently amended) The information provision apparatus according to claim 4, wherein said structured description is defined by ~~means of~~ XML Schema.

9. (Currently amended) The information provision apparatus according to claim 5, wherein said structured description is defined by ~~means of~~ Document Type Definition (DTD) of XML.

10. (Currently amended) The information provision apparatus according to claim 5, wherein said structured description is defined by ~~means of~~ Resource Description Framework (RDF) of XML.

11. (Currently Amended) The information provision apparatus according to claim 5, wherein said structured description is defined by ~~means of~~ XML Schema.

12. (Cancelled)

13. (Currently amended) An information provision apparatus comprising:

an acquirer configured to acquire ~~a data stream generation source which generates~~ a data stream of content that has timewise continuity and metadata that includes information related to the content;

a unitizer configured to unitize metadata that includes at least one processing unit (MPU) for a segment ~~a metadata generation source which generates metadata which is data that describes said data stream content and that is unitized in correspondence to a segment~~ of ~~said~~the data stream;

a synchronizer configured to~~synchronization section which~~ synchronize ~~synchronizes said~~ the data stream segment and its corresponding ~~said~~ metadata processing unit; and

a capsulizer configured to capsulize ~~capsulization section which capsulizes~~ post-synchronization data stream packets and metadata unit packets, unit by unit, so as to make possible partial execution of the metadata, and to generate ~~generates~~ a capsulized stream.

14. (Currently amended) An information receiving apparatus comprising:

an extracter configured to ~~extraction section which extractes~~ extract a content data stream and metadata that comprises information related to the content, ~~describes that content~~ from a capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata; ~~and~~

a storage configured to store the extracted data stream and metadata; and

a processor configured to ~~processing section whichr processes~~ process, unit by unit, ~~said~~ the metadata that ~~has been~~ is unitized in correspondence to a segment of ~~said~~ the data stream.

15. (Original) The information receiving apparatus according to claim 14, wherein said units are merged in accordance with restriction information for merging said metadata units.

16. (Currently amended) The information receiving apparatus according to claim 14, wherein said processor ~~processing section~~ displays said metadata.

17. (Currently amended) The information receiving apparatus according to claim 14, wherein said processor ~~processing section~~ converts said data stream in accordance with conversion processing defined by said metadata.

18. (Currently amended) The information receiving apparatus according to claim 14, wherein said processor ~~processing section~~ capsulizes data stream packets and metadata unit packets and transfers said capsulized ~~said~~ data stream packets and said capsulized metadata unit packets to another node.

19. (Currently amended) The information receiving apparatus according to claim 14, wherein said processor ~~processing section~~ collects ~~together~~ a plurality of metadata together, and processes a plurality of said metadata together.

20. (Currently amended) An information receiving apparatus comprising:

an extracter configured to ~~extraction section which extractes~~ extract a content data stream and metadata that comprises information related to ~~describes that~~ the content, from a capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata;

a storage configured to store the extracted data stream and metadata;

a synchronizer configured to ~~synchronization section which synchronizes~~ synchronize, unit by unit, ~~said~~ the metadata unitized in correspondence to a segment of ~~said~~ the data stream with ~~said~~ the content data stream and its corresponding metadata unit; and

a processor configured to ~~processing section which processes~~ process, unit by unit, the metadata that is unitized in correspondence to the segment of the data stream ~~synchronized metadata unit by unit~~.

21. (Cancelled)

22. (Currently amended) A storage medium that can be read by a computer, and that stores an information provision program ~~that~~, the storage medium comprising:

an acquiring code segment for acquiring ~~reads~~ a data stream of content that has timewise continuity and metadata that includes ~~which is~~ information related to the content;

~~data that describes said data stream content and that is unitized in correspondence to a segment~~ a unitizing code segment for unitizing metadata that includes at least one processing unit (MPU) for a segment of ~~said~~ the data stream[[,]];

~~and synchronizes~~ a synchronizing code segment for synchronizing ~~said~~ the data stream segment and its corresponding ~~said~~ metadata processing unit; and

a capsulizing code segment for capsulizing post-synchronization data stream packets and metadata unit packets, unit by unit, so as to make possible partial execution of the metadata, and generating ~~for generating~~ a capsulized data stream.

23. (Currently amended) The storage medium according to claim 22, ~~wherein a program is stored~~ further comprising a placing code segment for placing said metadata unit packet so that processing of said metadata unit is completed before ~~the~~ a processing start time of a corresponding segment of said data stream.

24. (Original) The storage medium according to claim 22, wherein said metadata is described by structured description.

25. (Original) The storage medium according to claim 22, wherein said metadata unit is described by structured description.

26. (Currently amended) An information communication system comprising:

an information provision apparatus that ~~has a~~ comprises:

an acquirer configured to acquire ~~a data stream generation source which generates~~ a data stream of content that has timewise continuity and metadata that includes information related to the content;

a unitizer configured to unitize metadata that includes at least one processing unit (MPU) for a segment ~~, a metadata generation source which generates metadata which is data that describes said data stream content and that is unitized in correspondence to a segment of said~~ the data stream;~~[[,]]~~ and

a capsulizer configured to capsulize ~~capsulization section which capsulizes said~~ data stream packets and ~~said~~ metadata unit packets unit by unit, so as to make possible partial execution of the metadata, and to generate ~~generates~~ a capsulized stream; and

an information receiving apparatus ~~that has~~ that comprises:

an extracter configured to extract ~~extraction section which extracts~~ a content data stream and metadata that comprises information related to ~~that describes~~ the content, from ~~said~~ the capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata ~~generated by said information provision apparatus,~~;

~~and~~ a storage configured to store the extracted data stream and metadata; and

a processor configured to ~~processing section which processes~~ process, unit by unit, ~~said~~ the metadata that is ~~that has been~~ unitized in correspondence to a segment of ~~said~~ the data stream ~~and said content data stream and its corresponding metadata unit~~.

27. (Currently amended) An information communication system comprising:

an information provision apparatus ~~that has~~ that comprises:

an acquirer configured to acquire ~~a data stream generation source which generates~~ a data stream of content that has timewise continuity and ~~, a metadata generation source which generates~~ metadata that includes

information related to the content; ~~which is data that describes said data stream content and that is unitized in correspondence to a segment~~

a unitizer configured to unitize metadata that includes at least one processing unit (MPU) for a segment of ~~said~~ the data stream;[[,]]

a synchronizer configured to synchronize ~~synchronization section which synchronizes said~~ the data stream segment and its corresponding ~~said~~ metadata unit;[[,]], and

a capsulizer configured to capsulize ~~capsulization section which capsulizes said~~ data stream packets and ~~said~~ metadata unit packets unit by unit, so as to make possible partial execution of the metadata, and to generate ~~generates~~ a capsulized stream; and

an information receiving apparatus ~~that has~~ that comprises:

an extracter configured to ~~extraction section which extractes~~ extract a content data stream and metadata that ~~describes~~ comprises information related to the ~~that~~ content, from ~~said~~ a capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata;

a storage configured to store the extracted data stream and metadata;

~~generated by said information provision apparatus,~~ a synchronizer configured to synchronize, ~~synchronization section which synchronizes~~ unit by unit, ~~said~~ the metadata unitized in correspondence to a segment of ~~said~~ the data stream with ~~said~~ the content data stream and its corresponding metadata unit;[[,]] and

a processor configured to process, ~~processing section which processes~~ unit by unit, the metadata unitized in correspondence to the segment of the data stream ~~unit by unit~~.

28. (Currently amended) An information provision method comprising:

acquiring ~~generating a segment of~~ a data stream of content that has timewise continuity and metadata that includes information related to the content ~~which is data~~

~~that describes said data stream content and that is unitized in correspondence to a segment of said data stream; and~~

unitizing metadata that includes at least one processing unit (MPU) for a segment of the data stream; and

capsulizing ~~said~~ data stream packets and ~~said~~ metadata unit packets unit by unit, so as to make possible partial execution of the metadata, and generating a capsulized stream.

29. (Currently amended) An information provision method comprising:

acquiring ~~generating a segment of~~ a data stream of content that has timewise continuity and metadata that includes information related to the content ~~which is data that describes said data stream content and that is unitized in correspondence to a segment of said data stream; and~~

unitizing metadata that includes at least one processing unit (MPU) for a segment of the data stream;

synchronizing the segment of the data stream and its corresponding processing unit of the metadata; and

capsulizing ~~said~~ data stream packets and ~~said~~ metadata unit packets, unit by unit, so as to make possible partial execution of metadata and generating a capsulized stream.

30. (Currently amended) An information receiving method comprising:

extracting a content data stream and metadata that comprises information related to the content, ~~describes that content~~ from a capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata; ~~and~~

storing the extracted data stream and metadata; and

processing, unit by unit, ~~said~~ the metadata that ~~has been~~ is unitized in correspondence to a segment of ~~said~~ the data stream.

31. (Currently amended) An information receiving method comprising:

extracting a content data stream and metadata that comprises information related to ~~describes that~~ the content, from a capsulized stream, the capsulized data stream comprising data stream packets and metadata unit packets that are capsulated, unit by unit, so as to make possible partial execution of metadata;

storing the extracted data stream and metadata;

synchronizing, unit by unit, ~~said~~ the metadata unitized in correspondence to a segment of ~~said~~ the data stream with ~~said~~ the content data stream and its corresponding metadata unit; and

processing, unit by unit, the metadata that is unitized in correspondence to the segment of the data stream ~~synchronized metadata unit by unit~~.

32. (New) The information provision apparatus according to claim 1, wherein the unitized metadata includes a metadata type, a flag indicating a presence or absence of time synchronization, and actual data.

33. (New) The information provision apparatus according to claim 1, wherein the unitized metadata includes a metadata type, a flag indicating a presence or absence of time synchronization, a start time and duration of AV data, and actual data.

34. (New) The information provision apparatus according to claim 2, wherein the actual data comprises information related to content, information related to a display method, or program.

35. (New) The information provision apparatus according to claim 2, wherein the metadata type comprises position information, content information, or information for processing metadata, or program.

36. (New) The information provision apparatus according to claim 3, wherein the actual data comprises information related to content, information related to a display method, or program.

37. (New) The information provision apparatus according to claim 3, wherein the metadata type comprises position information, content information, or information for processing metadata, or program.